

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/112794 A3

(51) International Patent Classification⁷: **A61K 31/553**,
A61P 37/08, 27/14

(21) International Application Number:
PCT/EP2004/006562

(22) International Filing Date: 17 June 2004 (17.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/479,575 18 June 2003 (18.06.2003) US

(71) Applicant (for all designated States except AT, US): NO-
VARTIS AG [CH/CH]; Lichtstrasse 35, CH-4056 Basel
(CH).

(71) Applicant (for AT only): NOVARTIS PHARMA GmbH
[AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).

(72) Inventor; and

(75) Inventor/Applicant (for US only): COUTRE, Steven
[US/US]; 703 Welch Road, G-1, Stanford, CA 94305 (US).

(74) Agent: GRUBB, Philip; Novartis AG, Corporate Intellec-
tual Property, CH-4002 Basel (CH).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
16 June 2005

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: NEW PHARMACEUTICAL USES OF STAUROSPORINE DERIVATIVES

(57) Abstract: This application relates to the use of staurosporines derivatives for the curative, palliative or prophylactic treatment of allergic rhinitis, allergic dermatitis, drug allergy or food allergy, angioedema, urticaria, sudden infant death syndrome, bronchopulmonary aspergillosis, multiple sclerosis, or mastocytosis; and to a method of treatment of warm-blooded animals in which a therapeutically effective dose of a compound of a Staurosporine Derivative is administered to a warm-blooded animal suffering from one of the diseases or conditions mentioned above.

WO 2004/112794 A3

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/006562

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K31/553 A61P37/08 A61P27/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | WO 97/49406 A (AIMONE LISA D ; CEPHALON INC (US); ENGBER THOMAS M (US); HAUN FORREST) 31 December 1997 (1997-12-31) claims 2,5 | 1,2,6 |
| P,X | WO 03/065995 A (LYONS JOHN ; SUPERGEN INC (US); RUBINFELD JOSEPH (US)) 14 August 2003 (2003-08-14) claims 33,35,45,53 | 1,2,4,6 |
| X | WO 99/62537 A (CORNELL RES FOUNDATION INC ; UNIV ROCKEFELLER (US)) 9 December 1999 (1999-12-09) page 5, lines 7-9; claims 12,16,18,26 | 1,2,6 |
| A | WO 98/48795 A (LILLY CO ELI) 5 November 1998 (1998-11-05) page 3, lines 21,22; claims | 1 |
| -/-- | | |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

'A' document defining the general state of the art which is not considered to be of particular relevance

'E' earlier document but published on or after the international filing date

'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

'O' document referring to an oral disclosure, use, exhibition or other means

'P' document published prior to the international filing date but later than the priority date claimed

'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

'&' document member of the same patent family

Date of the actual completion of the international search

17 January 2005

Date of mailing of the international search report

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.
Fax: (+31-70) 340-3016

Authorized officer

Veronese, A

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/006562

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------------|
| A | <p>DATABASE WPI Section Ch, Week 198903 Derwent Publications Ltd., London, GB; Class B02, AN 1989-019684 XP002295579 & JP 63 295589 A (KYOWA HAKKO KOGYO KK) 1 December 1988 (1988-12-01) abstract</p> <p>-----</p> | 1,2,6 |
| A | <p>WO 02/46197 A (ORTHO MCNEIL PHARM INC) 13 June 2002 (2002-06-13) claims 13-17,31,32</p> <p>-----</p> | 1 |
| A | <p>EP 0 470 490 A (HOFFMANN LA ROCHE) 12 February 1992 (1992-02-12) page 6, line 55; claim 1</p> <p>-----</p> | 1,2 |
| Y | <p>AMON U ET AL: "CGP 41251, a novel protein kinase inhibitor with in vitro selectivity for protein kinase C, strongly inhibits immunological activation of human skin mast cells and human basophils." PHARMACOLOGY. SEP 1993, vol. 47, no. 3, September 1993 (1993-09), pages 200-208, XP009036185 ISSN: 0031-7012 See abstract page 202, column 2, last line - page 203, column 1 page 207, column 2</p> <p>-----</p> | 1-3,6,8, 10,11, 13-19 |
| Y | <p>KUROSAWA M ET AL: "Effect of staurosporine on histamine release from rat serosal mast cells." ANNALS OF ALLERGY. SEP 1989, vol. 63, no. 3, September 1989 (1989-09), pages 231-234, XP009036192 ISSN: 0003-4738 the whole document</p> <p>-----</p> | 1-3,6,8, 10,11, 13-19 |
| X | <p>WO 03/037347 A (NOVARTIS PHARMA GMBH ; MANLEY PAUL WILLIAM (CH); NOVARTIS AG (CH); DAN) 8 May 2003 (2003-05-08) claims</p> <p>-----</p> | 10 |
| A | <p>WO 02/080925 A (NOVARTIS AG ; KOIKE KENICHI (JP); NAKAJIMA MOTOWO (JP); KOMIYAMA ATSUS) 17 October 2002 (2002-10-17) See claim 1: treatment of infant death syndrome, bronchopulmonary aspergillosis, mastocytosis, multiple sclerosis.claims 4,5</p> <p>-----</p> | 1-19 |
| | -/-- | |

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/006562

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|-----------------------------|
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| T | OPDAL S H ET AL: "New insight into sudden infant-death syndrome" LANCET THE, LANCET LIMITED. LONDON, GB, vol. 364, no. 9437, 4 September 2004 (2004-09-04), pages 825-826, XP004552551 ISSN: 0140-6736 the whole document | 1-3,6,8, 11,19 |
| A | US 4 639 455 A (MOORE LUANA) 27 January 1987 (1987-01-27) See claim 1: prevention of sudden infant death syndrome | 1-3,6,8, 11,19 |
| A | EP 0 518 468 A (NEURIM PHARMA 1991) 16 December 1992 (1992-12-16) claim 6 See claim 6: prevention of sudden infant death syndrome. | 1-3,6,8, 11,19 |
| A | WARK P A ET AL: "Allergic bronchopulmonary aspergillosis: new concepts of pathogenesis and treatment." RESPIROLOGY (CARLTON, VIC.) MAR 2001, vol. 6, no. 1, March 2001 (2001-03), pages 1-7, XP002313470 ISSN: 1323-7799 abstract table 2 See page 4 "Management of allergic bronchopulmonary aspergillosis". page 4, column 1 - page 5, column 2 page 6, column 1 | 1-3,6,8, 10,11, 13-19 |
| A | GREENBERGER PAUL A: "Clinical aspects of allergic bronchopulmonary aspergillosis." FRONTIERS IN BIOSCIENCE : A JOURNAL AND VIRTUAL LIBRARY. 1 JAN 2003, vol. 8, 1 January 2003 (2003-01-01), pages s119-s127, XP002313471 ISSN: 1093-4715 See page 125: "Approach to treatment of allergic bronchopulmonary aspergillosis" | 1-3,6,8, 10,11, 13-19 |
| A | SVIRSHCHEVSKAYA E V ET AL: "Immunotherapy of allergic bronchopulmonary aspergillosis: a clinical and experimental approach." FRONTIERS IN BIOSCIENCE : A JOURNAL AND VIRTUAL LIBRARY. 1 JAN 2003, vol. 8, 1 January 2003 (2003-01-01), pages s92-101, XP002313472 ISSN: 1093-4715 See page 96: "Conclusions" abstract | 1-3,6,8, 10,11, 13-19 |

-/--

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/006562

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------------|
| A | WO 96/31514 A (SANDOZ LTD ; SANDOZ AG (DE); SANDOZ AG (AT); HERSPERGER RENE (CH); NAE) 10 October 1996 (1996-10-10) See treatment of bronchopulmonary aspergillosis: page 15, line 6claim 1 ----- | 1-3,6,8, 10,11, 13-19 |
| A | BRADSHAW D ET AL: "THERAPEUTIC POTENTIAL OF PROTEIN KINASE C INHIBITORS" AGENTS AND ACTIONS, BIRKHAUSER VERLAG, BASEL, CH, vol. 38, 1993, pages 135-147, XP009034964 ISSN: 0065-4299 abstract See page 138, columns 1,2: "Multiple sclerosis" See page 142, column 1: reference to staurosporine table 1 ----- | 1-3,6,8, 10,11, 13-19 |
| A | HUDSON S J ET AL: "Intracellular signaling of tumor necrosis factor-alpha in brain microvascular endothelial cells is mediated by a protein tyrosine kinase and protein kinase C-dependent pathway." JOURNAL OF NEUROIMMUNOLOGY. NOV 1996, vol. 70, no. 2, November 1996 (1996-11), pages 199-206, XP002313473 ISSN: 0165-5728 See page 201, column 2 - page 202, column 2, "Results; pages 204-205, "discussion"; figure 3C; and in particular the references to staurosporin ----- | 1-3,6,8, 10,11, 13-19 |
| A | JUREWICZ A M ET AL: "Shedding of TNF receptors in multiple sclerosis patients." NEUROLOGY. 22 OCT 1999, vol. 53, no. 7, 22 October 1999 (1999-10-22), pages 1409-1414, XP008041519 ISSN: 0028-3878 See page 1412, second column: "Protein kinase C inhibition" figure 6 ----- | 1-3,6,8, 10,11, 13-19 |
| E | DATABASE CA 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; MORISHITA, TSUYOSHI ET AL: "Drug for nerve regeneration containing glycogen synthase kinase-3 inhibitors" XP002313532 retrieved from STN Database accession no. 2004:902218 abstract ----- -/-- | 1-3,6,8, 10,11, 13-19 |

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/006562

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|--------------------------------------|
| E | <p>& WO 2004/091663 A1 (KYOWA HAKKO KOGYO CO., LTD., JAPAN) 28 October 2004 (2004-10-28)</p> <p>-----</p> <p>DATABASE CA 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; KITA, YASUHIRO ET AL: "Remedy for cerebral neurodegenerative diseases using PPAR.delta. agonist" XP002313533 retrieved from STN Database accession no. 2004:927076 abstract & WO 2004/093910 A1 (FUJISAWA PHARMACEUTICAL CO., LTD., JAPAN) 4 November 2004 (2004-11-04)</p> <p>-----</p> | <p>1-3,6,8, 10,11, 13-19</p> |
| A | <p>LONGLEY B J ET AL: "NEW APPROACHES TO THERAPY FOR MASTOCYTOSIS A CASE FOR TREATMENT WITH KIT KINASE INHIBITORS" HEMATOLOGY - ONCOLOGY CLINICS OF NORTH AMERICA, W.B. SAUNDERS, US, vol. 14, no. 3, June 2000 (2000-06), pages 689-695, XP008010967 ISSN: 0889-8588 the whole document</p> <p>-----</p> | <p>1-19</p> |
| A | <p>THARP M D: "Mastocytosis" CURRENT PROBLEMS IN DERMATOLOGY 1998 UNITED STATES, vol. 10, no. 5, 1998, pages 181-210, XP009030211 ISSN: 1040-0486 See pages 202-205: " management"</p> <p>-----</p> | <p>1-19</p> |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/006562

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 6,7, 11-16,19 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1, 2, 3, 6, 8, 10, 11, 13, 14, 15, 16, 17 ,18 ,19
(partial);

Use of compounds falling in the Markush definition (A) of claim 1 and of formula (I), (II), (III), (VI) of claim 2 in relation to the treatment of allergic rhinitis, allergic dermatitis, drug or food allergy, angioderma and urticaria.

2. claims: 1, 2, 3, 6, 8, 10, 11, 13, 14, 15, 16, 17 ,18 ,19
(partial);

Use of compounds falling in the Markush definition (A) of claim 1 and of formula (I), (II), (III), (VI) of claim 2 in relation to the treatment of sudden infant death syndrome.

3. claims: 1, 2, 3, 6, 8, 10, 11, 13, 14, 15, 16, 17 ,18 ,19
(partial);

Use of compounds falling in the Markush definition (A) of claim 1 and of formula (I), (II), (III), (VI) of claim 2 in relation to the treatment of bronchopulmonary aspergillosis.

4. claims: 1, 2, 3, 6, 8, 10, 11, 13, 14, 15, 16, 17 ,18 ,19
(partial);

Use of compounds falling in the Markush definition (A) of claim 1 and of formula (I), (II), (III), (VI) of claim 2 in relation to the treatment of multiple sclerosis.

5. claims: 1, 2, 3,4,5 6,7, 8, 10, 11, 13, 14, 15, 16, 17 ,18 ,19
(partial); 9, 12, (complete)

Use of compounds falling in the Markush definition (A) of claim 1 and of formula (I), (II), (III), (VI) of claim 2 in relation to the treatment of mastocytosis.

6. claims: 1, 2, 6, 19 (partial);

Use of compounds falling in the Markush definition (B) and (C) of claim 1 and of formula (V) of claim 2 in relation to the treatment of allergic rhinitis, allergic dermatitis, drug or food allergy, angioderma and urticaria.

7. claims: 1, 2, 6, 19 (partial);

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Use of compounds falling in the Markush definition (B) and (C) of claim 1 and of formula (V) of claim 2 in relation to the treatment of sudden infant death syndrome.

8. claims: 1, 2, 6, 19 (partial);

Use of compounds falling in the Markush definition (B) and (C) of claim 1 and of formula (V) of claim 2 in relation to the treatment of bronchopulmonary aspergillosis.

9. claims: 1, 2, 6, 19 (partial);

Use of compounds falling in the Markush definition (B) and (C) of claim 1 and of formula (V) of claim 2 in relation to the treatment of multiple sclerosis.

10. claims: 1, 2, 4, 5, 6, 7, 19 (partial);

Use of compounds falling in the Markush definition (B) and (C) of claim 1 and of formula (V) of claim 2 in relation to the treatment of mastocytosis.

11. claims: 1, 2, 3, 6, 8, 10, 11, 13, 14, 15, 16, 17, 18, 19 (partial);

Use of compounds falling in the Markush definition (D) of claim 1 and of formula (IV) of claim 2 in relation to the treatment of allergic rhinitis, allergic dermatitis, drug or food allergy, angioderma and urticaria.

12. claims: 1, 2, 3, 6, 8, 10, 11, 13, 14, 15, 16, 17, 18, 19 (partial);

Use of compounds falling in the Markush definition (D) of claim 1 and of formula (IV) of claim 2 in relation to the treatment of sudden infant death syndrome.

13. claims: 1, 2, 3, 6, 8, 10, 11, 13, 14, 15, 16, 17, 18, 19 (partial);

Use of compounds falling in the Markush definition (D) of claim 1 and of formula (IV) of claim 2 in relation to the treatment of bronchopulmonary aspergillosis.

14. claims: 1, 2, 3, 6, 8, 10, 11, 13, 14, 15, 16, 17, 18, 19 (partial);

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Use of compounds falling in the Markush definition (D) of claim 1 and of formula (IV) of claim 2 in relation to the treatment of multiple sclerosis.

15. claims: 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 14, 15, 16, 17 ,18 ,19 (partial);

Use of compounds falling in the Markush definition (D) of claim 1 and of formula (IV) of claim 2 in relation to the treatment of mastocytosis.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No.

PCT/EP2004/006562

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|--|--|
| WO 9749406 | A | 31-12-1997 | AT 224718 T AU 721942 B2 AU 3409097 A BR 9710693 A CA 2258662 A1 CN 1228024 A ,B DE 69715862 D1 DE 69715862 T2 DK 912184 T3 EP 0912184 A1 ES 2184106 T3 HK 1018745 A1 JP 2000514420 T KR 2000022217 A NO 986111 A NZ 333441 A PT 912184 T RU 2183959 C2 WO 9749406 A1 US 6184217 B1 | 15-10-2002 20-07-2000 14-01-1998 11-01-2000 31-12-1997 08-09-1999 31-10-2002 10-04-2003 25-11-2002 06-05-1999 01-04-2003 17-01-2003 31-10-2000 25-04-2000 23-02-1999 28-05-1999 31-12-2002 27-06-2002 31-12-1997 06-02-2001 |
| WO 03065995 | A | 14-08-2003 | US 2003147813 A1 US 2004127453 A1 CA 2474174 A1 WO 03065995 A2 | 07-08-2003 01-07-2004 14-08-2003 14-08-2003 |
| WO 9962537 | A | 09-12-1999 | AU 4423799 A WO 9962537 A1 | 20-12-1999 09-12-1999 |
| WO 9848795 | A | 05-11-1998 | AU 7131898 A BR 9809343 A CA 2289257 A1 CN 1259866 T EP 0903145 A2 HU 0002836 A2 ID 23528 A JP 2002501501 T NO 995231 A PL 336760 A1 TR 9902682 T2 US 6093740 A WO 9848795 A1 | 24-11-1998 04-07-2000 05-11-1998 12-07-2000 24-03-1999 28-02-2001 27-04-2000 15-01-2002 27-12-1999 17-07-2000 22-05-2000 25-07-2000 05-11-1998 |
| JP 63295589 | A | 01-12-1988 | JP 2112941 C JP 8026037 B | 21-11-1996 13-03-1996 |
| WO 0246197 | A | 13-06-2002 | AU 2737102 A CA 2431187 A1 EP 1345946 A1 JP 2004526676 T US 2003078280 A1 WO 0246197 A1 | 18-06-2002 13-06-2002 24-09-2003 02-09-2004 24-04-2003 13-06-2002 |
| EP 0470490 | A | 12-02-1992 | AT 179710 T AU 649699 B2 AU 8167291 A BR 9103385 A CA 2046801 A1 | 15-05-1999 02-06-1994 13-02-1992 12-05-1992 08-02-1992 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/006562

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|---|---------------------|----------------------------|---------------------|
| EP 0470490 | A | | CS 9102435 A3 | 19-02-1992 |
| | | | DE 69131190 D1 | 10-06-1999 |
| | | | DE 69131190 T2 | 04-11-1999 |
| | | | DK 470490 T3 | 01-11-1999 |
| | | | EP 0470490 A1 | 12-02-1992 |
| | | | ES 2132076 T3 | 16-08-1999 |
| | | | FI 913754 A ,B, | 08-02-1992 |
| | | | GR 3030677 T3 | 30-11-1999 |
| | | | HU 61542 A2 | 28-01-1993 |
| | | | IE 912787 A1 | 12-02-1992 |
| | | | IL 99064 A | 31-08-1995 |
| | | | JP 2050974 C | 10-05-1996 |
| | | | JP 4230686 A | 19-08-1992 |
| | | | JP 7080880 B | 30-08-1995 |
| | | | KR 233964 B1 | 15-12-1999 |
| | | | MC 2279 A | 23-06-1993 |
| | | | MX 9100530 A1 | 01-04-1992 |
| | | | NO 913051 A ,B, | 10-02-1992 |
| | | | NZ 239216 A | 26-05-1994 |
| | | | PT 98583 A ,B | 30-06-1992 |
| | | | RO 112724 B1 | 30-12-1997 |
| | | | SK 279566 B6 | 11-01-1999 |
| | | | RU 2075474 C1 | 20-03-1997 |
| | | | US 5292747 A | 08-03-1994 |
| | | | ZA 9106041 A | 29-04-1992 |
| WO 03037347 | A | 08-05-2003 | BR 0213739 A | 19-10-2004 |
| | | | CA 2462657 A1 | 08-05-2003 |
| | | | WO 03037347 A1 | 08-05-2003 |
| | | | EP 1441737 A1 | 04-08-2004 |
| | | | HU 0401642 A2 | 29-11-2004 |
| WO 02080925 | A | 17-10-2002 | BR 0208663 A | 09-03-2004 |
| | | | CA 2443092 A1 | 17-10-2002 |
| | | | CZ 20032705 A3 | 16-06-2004 |
| | | | EP 1389113 A1 | 18-02-2004 |
| | | | NO 20034414 A | 04-12-2003 |
| | | | SK 12312003 A3 | 03-02-2004 |
| | | | WO 02080925 A1 | 17-10-2002 |
| | | | US 2004157855 A1 | 12-08-2004 |
| | | | ZA 200307563 A | 21-04-2004 |
| US 4639455 | A | 27-01-1987 | NONE | |
| EP 0518468 | A | 16-12-1992 | AT 181670 T | 15-07-1999 |
| | | | DE 69229490 D1 | 05-08-1999 |
| | | | DE 69229490 T2 | 17-02-2000 |
| | | | DK 518468 T3 | 31-01-2000 |
| | | | EP 0518468 A1 | 16-12-1992 |
| | | | ES 2134789 T3 | 16-10-1999 |
| | | | GR 3031257 T3 | 31-12-1999 |
| | | | HK 1011932 A1 | 31-03-2000 |
| | | | JP 7002694 A | 06-01-1995 |
| | | | US 5500225 A | 19-03-1996 |
| | | | US 5498423 A | 12-03-1996 |
| WO 9631514 | A | 10-10-1996 | AU 703523 B2 | 25-03-1999 |
| | | | AU 5645396 A | 23-10-1996 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/006562

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|----------------------------|---------------------|
| WO 9631514 | A | BR 9604808 A | 09-06-1998 |
| | | CA 2216562 A1 | 10-10-1996 |
| | | CN 1180359 A ,B | 29-04-1998 |
| | | CZ 9703123 A3 | 14-01-1998 |
| | | WO 9631514 A1 | 10-10-1996 |
| | | EP 0819130 A1 | 21-01-1998 |
| | | FI 973529 A | 25-11-1997 |
| | | HU 9801993 A2 | 28-12-1998 |
| | | IL 117815 A | 16-07-2000 |
| | | JP 2000505044 T | 25-04-2000 |
| | | NO 974536 A | 01-10-1997 |
| | | NZ 307170 A | 29-03-1999 |
| | | PL 322553 A1 | 02-02-1998 |
| | | SK 133997 A3 | 06-05-1998 |
| | | TR 9700999 T1 | 21-01-1998 |
| | | US 5925649 A | 20-07-1999 |
| | | ZA 9602751 A | 06-10-1997 |
| WO 2004091663 | A1 | 28-10-2004 | NONE |
| WO 2004093910 | A1 | 04-11-2004 | NONE |